

**REMARKS**

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

**Status of Claims:**

Claims 1-19 are currently being canceled.

Claims 20-38 are currently being added.

No claims are currently being amended.

This amendment adds and cancels claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 20-38 are now pending in this application.

**Statement Concerning Claims 20-38:**

All of the presently pending claims 20-22 and 30-32 are readable on the elected Group 1, which is drawn to separating devices based on input/output wavelength, whereby claims 20-22 respectively correspond to claims 1-3 (rewritten to better conform to U.S. Patent Practice, as well as to add other features in order to more clearly define over the cited art of record) and whereby claims 30-32 respectively correspond to claims 11-13 (rewritten to better conform to U.S. Patent Practice, as well as to add other features in order to more clearly define over the cited art of record). Claims 23-29 and 33-38 respectively correspond to non-elected claims 4-10 and 14-19 (rewritten to better conform to U.S. Patent Practice).

**Statement Concerning Priority:**

On pages 2 and 3 of the Office Action, the Examiner incorrectly asserts that this application cannot properly claim priority to the Japanese patent application to which it claims priority to. In this regard, the Examiner appears to be confusing domestic or non-PCT priority claims, which must be made within one year after the filing date of the prior application, and PCT priority claims, which can be based on applications filed more than one year before ENTRY OF THE NATIONAL PHASE. In this case, a Japanese patent application 11-277002 was filed on September 29, 1999. Then a PCT application was filed in

Japan within one year of that date, on September 29, 2000. This application corresponds to the U.S. national stage application of that PCT application, whereby that filing was made in a timely manner. Accordingly, the claim to priority is proper, and if the Examiner still disagrees, HE IS REQUESTED TO CONTACT THE UNDERSIGNED BY TELEPHONE TO ATTEMPT STRAIGHTEN OUT THIS MATTER.

**Statement Concerning Specification:**

On page 3 of the Office Action, the Examiner asserts that any claims to priority should be stated in the specification under its own heading. Applicant respectfully disagrees, whereby the Examiner appears to be confusing the rule concerning domestic priority (where such a statement should be placed in the specification) with rules concerning foreign priority (where such a statement need not be placed in the specification). Again, if the Examiner disagrees, HE IS REQUESTED TO CONTACT THE UNDERSIGNED BY TELEPHONE TO ATTEMPT STRAIGHTEN OUT THIS MATTER.

**Claim Objections:**

In the Office Action, claims 1, 12 and 13 were objected to because “[t]here is no indication of what the preamble is and when claim limitations begin.” This objection has been overcome by way of the presently pending new claims 19-38, which clearly set forth where the preamble is and where the body of the claim is.

**Claim Rejections – Prior Art:**

In the Office Action, claims 1, 2, 11 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 99/53719 to Golden in view of U.S. Patent No. 5,973,809 to Okayama; and claims 3 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 99/53719 to Golden in view of U.S. Patent No. 5,973,809 to Okayama and further in view of U.S. Patent No. 6,591,368 to Ryu. These rejections are traversed with respect to the presently pending claims 20-22 and 30-32, for at least the reasons given below.

First, certain features of the present invention as recited in claim 20 include: “the other of said LAN connecting devices comprises: an optical distributor for separating an optical signal transmitted by said circuit to said first input / output wavelength and said second input / output wavelength and outputting each of them, a second communication data control part for performing ordinary LAN communication processing by the optical signal of the first

input / output wavelength outputted by said optical distributor, and a second maintenance data control part for performing said maintenance test processing relating of communication by the optical signal of the second input / output wavelength outputted by said optical distributor so as to perform maintenance test of a path between said LAN connecting devices by a signal of the OSI layer 2.”

Also, certain features of the present invention according to claim 30 include: “an optical distributor for separating an optical signal transmitted by said circuit to said first input / output wavelength and said second input / output wavelength and outputting each of them, a communication data control part for performing ordinary LAN communication processing by the optical signal of the first input / output wavelength outputted by said optical distributor and a maintenance data control part for performing said maintenance test processing of communication by the optical signal of the second input / output wavelength outputted by said optical distributor so as to perform maintenance test of a connection path with said opposite party LAN connecting device by a signal of the OSI layer 2.”

The present invention according to claims 20 and 30 provides for an improved operation as compared to conventional devices, by adopting a construction in which, even in a LAN connecting device not having a protocol up to the layer 3, that the input / output wavelength are separated into those for the ordinary LAN communication and for the test communication relating to communication so that maintenance test can be performed for the path between the LAN connecting devices using the wavelength for the test communication.

Next, the present invention according to claim 21 includes features in which: “one of said LAN connecting devices is provided with an optical collector for collecting an optical signal of said first input / output wavelength and an optical signal of said second input / output wavelength and for transmitting them to said circuit, a first communication data control part for performing ordinary LAN communication processing and outputting the optical signal of the first input / output wavelength outputted by the ordinary LAN communication processing to said optical collector, and a first maintenance data control part for performing failure monitoring processing and outputting alarm information obtained by the failure monitoring processing to said optical collector as an optical signal of the second input / output wavelength.”

Also, the present invention according to claim 31 includes features which include: “an optical collector for collecting an optical signal of said first input / output wavelength and an optical signal of said second input / output wavelength and transmitting them to said circuit, a communication data control part for performing ordinary LAN communication processing and outputting the optical signal of the first input / output wavelength outputted by the ordinary LAN communication processing to said optical collector, and a maintenance data control part for performing failure monitoring processing and outputting alarm information obtained by the failure monitoring processing as the optical signal of the second input / output wavelength to said optical collector so as to transmit said alarm information to said opposite party LAN connecting device by a signal of the OSI layer 2.”

The present invention according to claims 21 and 31 provides for an improved operation as compared to conventional devices, even in a LAN connecting device not having a protocol up to the layer 3, by adopting a construction in which the input / output wavelength can be separated into those for the ordinary LAN communication and transmission of the alarm information notifying the communication state so that the alarm information notifying the communication state between the LAN connecting devices can be transmitted using the wavelength for alarm communication.

The present invention according to claim 22 includes features in which: “one of said LAN connecting devices is provided with an optical collector for collecting the optical signal of said first input / output wavelength and the optical signal of said second input / output wavelength and transmitting them to said circuit, a first communication data control part for performing ordinary LAN communication processing and outputting the optical signal of the first input / output wavelength outputted by the ordinary LAN communication processing to said optical collector, and a first maintenance data control part for power-state monitoring processing and outputting a power-off signal obtained by the power-state monitoring processing to said optical collector as an optical signal of the second input / output wavelength.”

Also, the present invention according to claim 32 includes features in which: “an optical collector for collecting the optical signal of said first input / output wavelength and the optical signal of said second input / output wavelength and transmitting them to said circuit, a communication data control part for performing ordinary LAN communication processing and outputting the optical signal of the first input / output wavelength outputted by the LAN

communication processing to said optical collector, and a maintenance data control part for performing the power-state monitoring processing and outputting a power-off signal obtained by the power-state monitoring processing to said optical collector as an optical signal of the second input / output wavelength so as to transmit said power-off signal to said the other LAN connecting device as a signal of the OSI layer 2.”

The present invention according to claims 22 and 32 provides for an improved operation as compared to conventional devices, even in a LAN connecting device not having a protocol up to the layer 3, by adopting a construction in which the input / output wavelength can be separated into those for the ordinary LAN communication and for the power-off state communication so that the signal showing power-off between the LAN connecting devices can be notified to the other LAN connecting device using the wavelength for communication of the power-off state.

Now, discussion of the differences between the claimed invention and the cited art of record will be provided hereinbelow.

First, when the present invention according to claims 20 and 30 is compared with Golden and Okayama, Golden discloses a system having a LAN connecting device which is connectable to a LAN and connected to its opposite party device through a circuit using an optical fiber as a physical medium. In the system of Golden, there are provided a communication means for ordinary LAN communication between terminals of a physical communication or between terminals of a logical communication, a test communicating means for performing a test of communication and a testing means for optionally performing a test of communication with said test communicating means so as to perform a maintenance test of a path between the LAN connecting devices. Okayama discloses a system for separating the optical signal with multiple light wavelength.

However, the present invention according to claims 20 and 30 is direction to features in that, even in a LAN connecting device without having a protocol up to the OSI layer 3 such as a bridge, a switch, etc., an operating test can be performed for a path between communication terminal devices connectable to a LAN at a signal level or a sign level with which up to the OSI layer 2 can be recognized, between relay devices or between a communication terminal device and a relay device and for these communication terminal

devices or with the relay device. Neither Golden nor Okayama is directed to such features of claims 20 and 30.

Moreover, since the object of the present invention according to claims 20 and 30 is totally different from the object of Golden and Okayama, it is impossible to combine the technology of Golden with that of Okayama to achieve the features of the present invention according to claims 20 and 30.

Therefore, the present invention according to claims 20 and 30, in which the path between LAN connecting devices can be maintained using a wavelength for test communication by separating the input output wavelength into those for ordinary LAN communication and for test communication relating to communication even in a LAN connecting device not having a protocol up to the layer 3, is not taught or suggested by the combined teachings of Golden and Okayama. It is also noted that Ryu does not rectify the above-mentioned shortcomings of Golden and Okayama.

Next, when the invention according to claims 21 and 31 is compared to Golden and Okayama, Golden discloses features in which a LAN connecting device is connectable to a LAN and connected to the other device through a circuit having an optical fiber as a physical medium, whereby there are provided a communicating means for performing ordinary LAN communication between terminals of the physical communication or terminals of the logical communication, a test communicating means for performing a test of communication, and a testing means for optionally performing a test by said test communicating means so as to perform a maintenance test of a path between the LAN connecting devices. Also, Okayama discloses features in which an optical signal is separated with multiple light wavelength.

However, the present invention according to claims 21 and 31 is different from the cited art of record in that, even in a LAN connecting device not having a protocol up to the layer 3, the input / output wavelength are separated into those for ordinary LAN communication and for alarm communication notifying a communication state, and alarm information notifying the communication state can be transmitted between LAN connecting devices by using a wavelength for the alarm communication. Neither Golden nor Okayama teaches or suggests such features.

Moreover, since the object of the present invention according to claims 21 and 31 is totally different from the object of Golden and Okayama, it is impossible to combine the technology of Golden with that of Okayama to achieve the features of the present invention according to claims 21 and 31.

Therefore, the present invention according to claims 21 and 31 is different from the Golden and Okayama in that, in the present invention according to claims 21 and 31, the alarm information that notifies the communication state between the LAN connecting devices can be transmitted using the wavelength for the alarm communication by separating the input / output wavelength into those for ordinary LAN communication and for the alarm communication notifying the communication state even in a LAN connecting device not having a protocol up to the layer 3.

Therefore, since Ryu does not rectify the above-mentioned shortcomings of Golden and Okayama, claims 21 and 31 are patentable over the cited art of record.

Next, with respect to claims 22 and 32 as compared with the cited art of record, Golden discloses features including a LAN connecting device which is connectable to a LAN and connected to the other device through a circuit having an optical fiber as a physical medium, there are provided a communicating means for performing ordinary LAN communication between terminals of the physical communication or terminals of the logical communication, a test communicating means for performing a test of communication, and a testing means for optionally performing a test by said test communicating means so as to perform a maintenance test of a path between the LAN connecting devices. Also, Okayama discloses features for separating an optical signal with multiple light wavelength and for notifying a power off signal by a state communicating means to an opposite party device when brought into the power-off state.

However, the present invention according to claims 22 and 32 is patentably different from the cited art of record in that, even in a LAN connecting device not having a protocol up to the layer 3, the input / output wavelength are separated into those for the ordinary LAN communication and for power-off state communication, and a signal showing the power-off can be notified to the other LAN connecting device between the LAN connecting devices using the wavelength for the power-off state communication.

Still further, with respect to claims 22 and 32, these claims include features in which the input / output wavelength is separated into those for the ordinary LAN communication and for power-off state communication, and in which a signal showing the power-off can be notified to the other LAN connecting device between the LAN connecting devices using the wavelength for the power-off state communication. Such features are not disclosed, taught or suggested by Golden, Okayama, or Ryu, alone or in combination.

Neither Golden nor Okayama teaches or suggests these features discussed above with respect to claims 22 and 32. Also, since Ryu does not rectify the above-mentioned shortcomings of Golden and Okayama, claims 22 and 32 are patentable over the cited art of record.

New claims 23-29 and 33-38 correspond to non-elected claims 4-10 and 14-19 (rewritten slightly to conform better to U.S. Patent Practice), and thus these non-elected claims will not be addressed in this Amendment and Reply.

**Conclusion:**

Since all of the issues raised in the Office Action have been addressed in this Amendment and Reply, Applicants believe that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.



The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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